

IN THE CLAIMS

1. (currently amended) A portable terminal equipped with a display unit, the portable terminal comprising:

a DC/DC converter for supplying power to the display unit;
a frequency switching unit for selectively switching and supplying one of a plurality of switching clock frequencies to the DC/DC converter; and
a display mode detecting unit for detecting that the display unit has been switched to a predetermined low-power consumption mode, determining one of the plurality of switching clock frequencies to maintain an efficiency of the DC/DC converter at an optimum level in the predetermined low-power consumption mode according to power consumption reduced in the predetermined low-power consumption mode based on this detection, and instructing the frequency switching unit to execute this selective switching.

2. (original) The portable terminal according to Claim 1, wherein
the display mode detecting unit determines lower one of the plurality of switching clock frequencies, when the display unit has been switched to a lower-power consumption mode.

3. (currently amended) A method of reducing power consumption of a portable terminal equipped with a display unit to which power is supplied from a DC/DC converter, the method comprising the steps of:

monitoring the display unit to see whether the display unit is in a display color number limiting mode or not;

determining a switching clock frequency of the DC/DC converter to maintain an efficiency of the DC/DC converter at an optimum level in the display color number limiting mode according to power consumption reduced by a reduction in the number of display colors, when the display color number limiting mode has been detected; and switching the frequency to the determined switching clock frequency, and operating the DC/DC converter at this frequency.

4. (currently amended) A method of reducing power consumption of a portable terminal equipped with a display unit to which power is supplied from a DC/DC converter, the method comprising the steps of:

monitoring the display unit to see whether the display unit is in a partial display mode or not;

determining a switching clock frequency of the DC/DC converter to maintain an efficiency of the DC/DC converter at an optimum level in the predetermined low-power consumption mode according to power consumption reduced by a reduction in a display area, when the partial display mode has been detected; and

switching the frequency to the determined switching clock frequency, and operating the DC/DC converter in this frequency.

5. (currently amended) The portable terminal according to Claim 1, wherein the display unit is an LCD display unit A portable terminal comprising:
a DC/DC converter for supplying power to the portable terminal;

a frequency switching unit for selectively switching and supplying one of a plurality of switching clock frequencies to the DC/DC converter; and

a power consumption mode detecting unit for detecting that the portable terminal has been switched to a predetermined low-power consumption mode, determining one of the plurality of switching clock frequencies to maintain the efficiency of the DC/DC converter at an optimum level in the predetermined low-power consumption mode, and instructing the frequency switching unit to execute this selective switching.

6. (previously presented) The portable terminal according to Claim 2, wherein the display unit is an LCD display unit.